2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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National implementation of the action plan of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Report submitted by Brazil

Introduction

1. The present report is submitted pursuant to action 20 of the action plan agreed at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT/CONF.2010/50 (Vol.I)). Action 20 established the obligation of all States parties to regularly report on the implementation of the 2010 action plan, as well as of article VI, paragraph 4 (c), of the 1995 decision entitled "Principles and objectives for nuclear non-proliferation and disarmament" and of the practical steps agreed to in the Final Document of the 2000 Review Conference. States parties also agreed that increased transparency and openness to cooperation is needed in order to fulfil the Treaty's objectives. Brazil is thoroughly committed to this exercise and expects it will lead to improved discussions on the implementation of the Treaty.

Nuclear disarmament

Action 1: All States parties commit to pursue policies that are fully compatible with the Treaty and the objective of achieving a world without nuclear weapons.

2. Brazil continues to be fully committed to implementation of the Non-Proliferation Treaty and to the objectives of nuclear disarmament, non-proliferation and the peaceful uses of nuclear energy. While Brazil believes that nuclear non-proliferation has been a success story under the Treaty, it considers that much remains to be done in terms of nuclear disarmament. In this context, Brazil has been a proactive advocate of nuclear disarmament, either in a national capacity or as a member of thematic coalitions and regional groupings, such as the New Agenda Coalition, the Community of Latin American and Caribbean States (CELAC) and the Union of South American Nations (UNASUR), in all nuclear disarmament-related forums, including the Non-Proliferation Treaty review process,

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the Conference on Disarmament, the United Nations Disarmament Commission, the First Committee of the General Assembly, the International Atomic Energy Agency (IAEA) and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization. Brazil attaches the utmost priority to the urgent commencement of multilateral negotiations on a comprehensive convention banning the development, production, possession and use of nuclear weapons and providing for the verified, transparent and irreversible disposal of all existing nuclear arsenals, within an agreed timeframe.

Action 2: All States parties commit to apply the principles of irreversibility, verifiability and transparency in relation to the implementation of their treaty obligations.

3. Brazil is thoroughly committed to the principles of irreversibility, verifiability and transparency in all its policies regarding nuclear disarmament, non-proliferation and peaceful uses of nuclear energy. All the nuclear material in Brazil is doubly verified. It is subject to the control of the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials for the Application of Safeguards ("Quadripartite Agreement"). under the terms of the bilateral agreement between Brazil and Argentina and to comprehensive safeguards by IAEA according to the terms of the Quadripartite Agreement between the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials, IAEA, Brazil and Argentina. The bilateral nuclear process starting in the mid-1980s has become an inalienable asset of the strategic partnership of the two countries, demonstrating their unwavering commitment to the exclusively peaceful uses of the atom and paving the way for the successful cooperation of the Brazilian-Argentine Agency with IAEA in the implementation of comprehensive safeguards for the past 20 years.

Action 6: All States agree that the Conference on Disarmament should immediately establish a subsidiary body to deal with nuclear disarmament, within the context of an agreed, comprehensive and balanced programme of work.

Practical step 4: The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate establishment of such a body.

4. Brazil considers the negotiation of a legally binding instrument to prohibit nuclear weapons and completely eliminate nuclear arsenals within a transparent, verifiable and irreversible manner and an agreed time frame the foremost priority of the Conference on Disarmament.

5. Within the Conference on Disarmament, Brazil has firmly supported an agreement on a programme of work that would allow it to commence substantive negotiations on all of its core issues, including nuclear disarmament. In this vein, Brazil has actively supported proposals of several of the presidencies of the Conference on possible programmes of work.

6. Brazil has further reinforced the call for the establishment of a subsidiary body in the Conference on Disarmament to deal with nuclear disarmament at different multilateral forums, including the First Committee of the General Assembly, the United Nations Disarmament Commission, and the preparatory committees, in a

national capacity and as a member of UNASUR, CELAC and the New Agenda Coalition.

Action 7: All States agree that the Conference on Disarmament should, within the context of an agreed, comprehensive and balanced programme of work, immediately begin discussion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons, to discuss substantively, without limitation, with a view to elaborating recommendations dealing with all aspects of this issue, not excluding an internationally legally binding instrument. The Review Conference invites the Secretary-General of the United Nations to convene a high-level meeting in September 2010 in support of the work of the Conference on Disarmament.

7. Brazil has consistently voiced its call for nuclear-weapon States to give unconditional security assurances to non-nuclear-weapon States against the use or threat of use of nuclear weapons, not only in the Conference on Disarmament but also in other disarmament forums, such as the First Committee of the General Assembly, the United Nations Disarmament Commission, the preparatory committees for the Review Conferences, and the Review Conferences. It is Brazil's view that effective guarantees can only be achieved through a legally binding instrument. Brazil has supported all initiatives to approve a programme of work on the Conference on Disarmament, which includes the issue of the so-called "negative security assurances".

Action 9: The establishment of further nuclear-weapon-free zones, where appropriate, on the basis of arrangements freely arrived at among States of the region concerned, and in accordance with the 1999 Guidelines of the United Nations Disarmament Commission, is encouraged. All concerned States are encouraged to ratify the nuclear-weapon-free zone treaties and their relevant protocols, and to constructively consult and cooperate to bring about the entry into force of the relevant legally binding protocols of all such nuclear-weapon free zones treaties, which include negative security assurances. The concerned States are encouraged to review any related reservations.

8. Brazil is a party to the pioneering treaty that established the first denuclearized zone in a densely populated area of the planet, the Treaty of Tlatelolco, and is ready to continue to contribute to efforts leading to the establishment of nuclear-weapon free zones around the world. Brazil has consistently called on the nuclear-weapon States to withdraw reservations and interpretative declarations to Protocols I and II to the Treaty of Tlatelolco and to the Protocols to other nuclear-weapon-free zone treaties as they are incompatible with the objectives of such treaties and with nuclear disarmament obligations under article VI of the Non-Proliferation Treaty. Brazil has, along with New Zealand, submitted biennially to the First Committee of the General Assembly the resolution entitled "Nuclear-weapon-free southern hemisphere and adjacent areas", which has enjoyed overwhelming support. Brazil also participates in the meetings of the Conference of States Parties and Signatories of Treaties that Establish Nuclear-Weapon-Free Zones and Mongolia, including the Third Conference to be held on 24 April 2015.

9. Brazil has consistently supported the convening of the Conference on the establishment of a Middle East zone free of nuclear weapons and all other weapons of mass destruction. Brazil has voiced its frustration with the postponement of that Conference in 2012 and expects it to be convened as soon as possible. Brazil

believes that the establishment of such a zone can make an invaluable contribution to peace and stability in the region.

Action 11: Pending the entry into force of the Comprehensive Nuclear-Test-Ban Treaty, all States commit to refrain from nuclear-weapon test explosions or any other nuclear explosions, the use of new nuclear weapons technologies and from any action that would defeat the object and purpose of that Treaty, and all existing moratoriums on nuclear-weapon test explosions should be maintained.

Action 12: All States that have ratified the Comprehensive Nuclear-Test-Ban Treaty recognize the contribution of the conferences on facilitating the entry into force of that Treaty and of the measures adopted by consensus at the Sixth Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty, held in September 2009, and commit to report at the 2011 Conference on progress made towards the urgent entry into force of that Treaty.

Action 13: All States that have ratified the Comprehensive Nuclear-Test-Ban Treaty undertake to promote the entry into force and implementation of that Treaty at the national, regional and global levels.

Practical step 1: The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the Comprehensive Nuclear-Test-Ban Treaty.

10. Brazil signed the Comprehensive Nuclear-Test-Ban Treaty in 1996 and ratified it two years later, in 1998, one of the first States to do so.

11. Brazil fully supports and actively participates in the Conferences on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (Article XIV Conferences). Brazil has made statements at both the seventh (2011) and eighth (2013) Conferences, outlining its priorities on the matter and reaffirming its commitment to the entry into force of the Comprehensive Nuclear-Test-Ban Treaty. Brazil also adhered to the joint ministerial statements issued at the fifth, sixth and seventh meetings of the Ministerial Meeting in support of the Comprehensive Nuclear-Test-Ban Treaty, in 2010, 2012 and 2014, respectively.

12. Moreover, Brazil consistently calls on all countries that have not yet signed and/or ratified the Treaty, particularly annex 2 countries, to do so as a matter of urgency. Brazil has repeated this call over the years in bilateral talks and in multilateral forums, such as the Conference on Disarmament, the United Nations Disarmament Commission and the First Committee of the General Assembly, both in its national capacity and as a member of UNASUR, CELAC and the New Agenda Coalition. Brazil has repeatedly raised the issue that, pending the entry into force of the Treaty, all countries should refrain from actions that may undermine its goals, in particular those related to the modernization of nuclear arsenals. Such actions include, in Brazil's view, the development of subcritical tests, which in spirit, if not in the letter, go against the objectives of the Treaty.

Action 14: The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization is to be encouraged to fully develop the verification regime for the Comprehensive Nuclear-Test-Ban Treaty, including early completion and provisional operationalization of the international monitoring

system in accordance with the mandate of the Preparatory Commission, which should, upon entry into force of that Treaty, serve as an effective, reliable, participatory and non-discriminatory verification system with global reach, and provide assurance of compliance with that Treaty.

13. Out of the seven facilities of the international monitoring system of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization in Brazilian territory, six are already in routine operation: a Primary Seismic Station (PS07, Brasília); a Infrasound Station (IS09, Brasília); a Radionuclide Station with noble gas system (RN11, Rio de Janeiro); a Radionuclide Laboratory (RL04, Rio de Janeiro); and two Auxiliary Seismic Stations (AS10, Pitinga and AS11, Riachuelo). The seventh facility, Radionuclide Station (RN12, Recife), is currently under construction. Brazilian experts have taken part in several training activities offered by the Preparatory Commission and actively participated in the integrated field exercise, held in Jordan in 2014, thus contributing to the development of the on-site inspection capability of the Preparatory Commission.

Action 15: All States agree that the Conference on Disarmament should, within the context of an agreed, comprehensive and balanced programme of work, immediately begin negotiation of a treaty banning the production of fissile material for use in nuclear weapons or other nuclear explosive devices in accordance with the report of the Special Coordinator of 1995 (CD/1299) and the mandate contained therein. Also in this respect, the Review Conference invites the Secretary-General of the United Nations to convene a high-level meeting in September 2010 in support of the work of the Conference on Disarmament.

Practical step 3: The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.

14. Although Brazil prioritizes the negotiation of a comprehensive convention on nuclear disarmament, it has also favoured negotiations on a fissile material treaty in the Conference on Disarmament and supported different initiatives to find a consensus formula that would make it possible to overcome the current stalemate in that body. It is Brazil's view that a fissile material treaty would only be meaningful as a disarmament measure if it would deal in one way or another with the issue of pre-existing stockpiles of fissile material.

15. In the absence of progress in the Conference on Disarmament, Brazil has favoured General Assembly resolution 67/53, by which the Assembly established a group of governmental experts to make contributions on possible aspects of a fissile material cut-off treaty and has participated actively in the meetings of the group.

Action 17: In the context of action 16, all States are encouraged to support the development of appropriate legally binding verification arrangements, within the context of IAEA, to ensure the irreversible removal of fissile material

designated by each nuclear-weapon State as no longer required for military purposes.

16. Brazil has, alongside its partners from the New Agenda Coalition, submitted a working paper on nuclear disarmament verification (NPT/CONF.2015/PC.I/WP.30) to the First Preparatory Committee to the 2015 Review Conference (2012), which deals, besides other matters, with the necessity to apply verifiable international safeguards to fissile material designated by nuclear-weapon States as no longer required for military purposes.

Action 18: All States that have not yet done so are encouraged to initiate a process towards the dismantling or conversion for peaceful uses of facilities for the production of fissile material for use in nuclear weapons or other nuclear explosive devices.

17. Brazil has never had facilities for the production of fissile material for use in nuclear weapons or other nuclear explosive devices. Brazil expects that all nuclear-weapons States will urgently take the necessary measures to close or convert all facilities related to the production of weapons-useable nuclear material, which represents more than 85 per cent of all nuclear material around the world and is not subject to any international verification or oversight mechanisms, in terms of safeguards, safety and security.

Action 19: All States agree on the importance of supporting cooperation among Governments, the United Nations, other international and regional organizations and civil society aimed at increasing confidence, improving transparency and developing efficient verification capabilities related to nuclear disarmament.

Practical step 13: The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.

18. Brazil considers that developing the necessary verification capabilities is an essential part of achieving complete and effective nuclear disarmament. Brazil has defended that multilateral organizations, notably IAEA, should play a central role in this respect. Brazil has taken the lead in support of the inclusion of the necessity of IAEA maintaining in-house disarmament verification capabilities in the Agency's Medium Term Strategy 2012-2017, as well as in the resolutions approved by the body's General Conference. Brazil welcomes the fact that, in resolution GC(58)/RES/14, the General Conference noted that the Agency must remain ready to assist, in accordance with its statute, with verification tasks under nuclear disarmament or arms control agreements that it may be requested to carry out by the States parties to such agreements.

Action 22: All States are encouraged to implement the recommendations contained in the report of the Secretary-General of the United Nations (A/57/124) regarding the United Nations study on disarmament and non-proliferation education, in order to advance the goals of the Treaty in support of achieving a world without nuclear weapons.

19. Brazil has welcomed the recommendations contained in the report of the Secretary-General regarding the United Nations study on disarmament and

non-proliferation education. The Government of Brazil routinely informs the general public about important nuclear disarmament events and issues, both via traditional institutional channels (such as official press releases) and utilizing new information technologies, such as social networks.

Nuclear non-proliferation

Action 23: The Conference calls upon all States parties to exert all efforts to promote universal adherence to the Treaty, and not to undertake any actions that can negatively affect prospects for the universality of the Treaty.

20. Brazil supports the universalization of the Non-Proliferation Treaty and has consistently called upon States that are not yet parties to the Treaty to accede to it as non-nuclear weapon countries without any preconditions or reservations.

Action 24: The Conference re-endorses the call by previous review conferences for the application of IAEA comprehensive safeguards to all source or special fissionable material in all peaceful nuclear activities in the State parties in accordance with the provisions of article III of the Treaty.

21. Since 1994, safeguards have been applied on all source or special fissionable material in all nuclear activities within Brazilian territory, pursuant to the Quadripartite Agreement. These safeguards have been applied by the Brazilian-Argentine Agency and IAEA in all facilities in Brazil containing nuclear material.

Action 26: The Conference underscores the importance in complying with the non-proliferation obligations, addressing all compliance matters in order to uphold the Treaty's integrity and the authority of the safeguards system.

22. Brazil is concerned about the possibility of non-compliance within the Treaty, as well as instances of proliferation outside the Treaty. Ensuring full compliance with the Treaty by its States parties and seeking its universality are goals that must be pursued in parallel. Complacency with proliferation outside the Treaty runs counter to efforts aimed at strengthening its regime and achieving non-proliferation goals and the total elimination of nuclear weapons.

23. To date, the Non-Proliferation Treaty has been quite successful in preventing the proliferation of nuclear weapons. With one exception, none of the 185 States that have become parties to the Treaty as non-nuclear-weapon States has built or acquired a nuclear weapon or a nuclear explosive device.

24. Nevertheless, such success gives no grounds for complacency. Brazil is therefore fully supportive of multilateral efforts aimed at preserving and reinforcing compliance with the non-proliferation obligations of the Treaty, notably through IAEA.

25. For Brazil, however, no matter how tight the verification of compliance may become the key to upholding the integrity of the Treaty lies in reducing the incentives to proliferate. In this regard, the continued reliance by some States or military alliances on nuclear weapons as the ultimate "deterrent" — and thereby essential instruments of a State's security — is probably the greatest threat to the integrity of the Treaty. Such reliance may be emulated by other States that feel threatened and that may conclude that the nuclear "deterrent" may be indeed essential for their survival.

Action 28: The Conference encourages all States parties which have not yet done so to conclude and to bring into force additional protocols as soon as possible and to implement them provisionally pending their entry into force.

Action 29: The Conference encourages IAEA to further facilitate and assist the States parties in the conclusion and entry into force of comprehensive safeguards agreements and additional protocols. The Conference calls on States parties to consider specific measures that would promote the universalization of the comprehensive safeguards agreements.

Action 30: The Conference calls for the wider application of safeguards to peaceful nuclear facilities in the nuclear-weapon States, under the relevant voluntary offer safeguards agreements, in the most economic and practical way possible, taking into account the availability of IAEA resources, and stresses that comprehensive safeguards and additional protocols should be universally applied once the complete elimination of nuclear weapons has been achieved.

26. As noted by the 2010 Review Conference (Final Document, para. 17), it is the sovereign decision of any State to conclude an additional protocol. For a non-nuclear-weapon State, article III.1 of the Non-Proliferation Treaty calls for the conclusion of a comprehensive safeguards agreement with IAEA. No other safeguards obligations or voluntary measures, such as the Additional Protocol, can be inferred as a legal obligation under article III.1 and retrospectively demanded from non-nuclear-weapon States.

27. While States parties should continue to consider measures to promote the universalization of comprehensive safeguards agreements, as provided for under action 29, comprehensive safeguards and additional protocols should be universally applied once the complete elimination of nuclear weapons has been achieved, as stated under action 30.

28. Brazil regrets that nuclear-weapon States have taken insignificant, if any, steps towards the wider application of safeguards to peaceful nuclear facilities in their territories under their voluntary offer agreements, as required under action 30. This state of affairs is in sharp contrast with the ever-increasing safeguards demands on non-nuclear-weapon States and reinforces the Treaty's structural asymmetries.

Action 32: The Conference recommends that IAEA safeguards should be assessed and evaluated regularly. Decisions adopted by the IAEA policy bodies aimed at further strengthening the effectiveness and improving the efficiency of IAEA safeguards should be supported and implemented.

29. Brazil remains supportive of IAEA efforts to promote more efficient and effective safeguards, in strict accordance with the relevant legal instruments entered into by Member States with the Agency, and taking into account the necessary distinction between legal obligations and voluntary commitments, such as the Additional Protocol.

30. Brazil joined others in support of the IAEA General Conference request in 2012 for the secretariat to report on the development of new approaches for safeguards implementation through the so-called "State-level concept". Brazil also supported the General Conference decision in 2013 to request from the secretariat a supplementary document, produced after consultation with Member States and submitted for consideration and action by the IAEA Board of Governors.

31. In its 2014 resolution entitled "Strengthening the effectiveness and improving the efficiency of Agency safeguards", the General Conference welcomed, with Brazil's support, the clarifications and additional information provided by the secretariat in the supplementary document.

32. The General Conference welcomed in particular the important assurances contained in the document and in the statements made by the IAEA Director General and the secretariat as noted by the Board of Governors in its September 2014 session. Among those assurances, the following should be highlighted:

(a) The State-level concept will not entail additional rights or obligations under the relevant safeguards agreements;

(b) The State-level concept will be applied to all States with safeguards agreements;

(c) The State-level concept is not a substitute for an additional protocol; it is not designed as a means for the Agency to obtain from a State without an additional protocol in force the information and access provided for in that instrument; additional protocol measures will continue to be implemented only in States with an additional protocol in force;

(d) States will not be required to provide any additional information beyond their existing legal obligations.

33. The General Conference also noted a point which Brazil strongly endorses: that the development and implementation of State-level approaches requires close consultation and coordination with the State and/or regional authority, and agreement by the State concerned on practical arrangements for effective implementation of all safeguards measures identified for use in the field, if not already in place. Brazil believes this is essential to ensure that all parties are satisfied that any possible new measures fall within the scope of the relevant legal instruments in force between the State and the Agency.

34. The development of the supplementary document and the decisions by the General Conference on the State-level concept resulted from an unprecedented process of consultations and technical meetings between the secretariat and Member States. For Brazil, this process introduced a new and encouraging dynamic in how safeguards issues should be dealt with within IAEA. The discussions have given room for greater accountability and transparency on the part of the secretariat and for closer involvement of Member States in the development of proposed new policies. The openness and transparency that have characterized the exchanges between the secretariat and Member States should be continuing features of ongoing and future discussions on safeguards within the Agency.

Action 33: The Conference calls upon all States parties to ensure that IAEA continues to have all political, technical and financial support so that it is able to effectively meet its responsibility to apply safeguards as required by article III of the Treaty.

35. Brazil fully supports the role of IAEA in guaranteeing compliance with Non-Proliferation Treaty obligations and advocates the centrality of the Agency's work within the global non-proliferation and disarmament regime. At the same time, while pursuing the Agency's safeguards activities in the most effective and efficient manner, an adequate balance in terms of resources must be preserved between all its

statutory activities, in particular with those related to the promotion of technical cooperation and other peaceful nuclear applications.

Action 34: The Conference encourages States parties, within the framework of the IAEA statute, to further develop a robust, flexible, adaptive and cost effective international technology base for advanced safeguards through cooperation among Member States and with IAEA.

36. Brazil has been contributing to the development of advanced safeguards technologies through the Brazilian programme of technical support to the IAEA Department of Safeguards, as a member of the so-called Member State Support Programmes. Brazil endorses this programme as a powerful tool for the development and improvement of nuclear verification technologies and methods and for capacity-building not only at the Agency but also in Member States. Currently, Brazil is supporting IAEA in the area of training, reference materials for destructive analysis, uranium hexafluoride (UF6) sampling techniques, novel non-destructive techniques for nuclear power reactors monitoring and the revision of guides on best practices for safeguards implementation.

Action 35: The Conference urges all States parties to ensure that their nuclear related exports do not directly or indirectly assist the development of nuclear weapons or other nuclear explosive devices and that such exports are in full conformity with the objectives and purposes of the Treaty as stipulated, particularly, in articles I, II and III of the Treaty, as well as the decision on principles and objectives of nuclear non-proliferation and disarmament adopted in 1995 by the Review and Extension Conference.

Action 36: The Conference encourages States parties to make use of multilaterally negotiated and agreed guidelines and understandings in developing their own national export controls.

Action 37: The Conference encourages States parties to consider whether a recipient State has brought into force IAEA safeguards obligations in making nuclear export decisions.

37. Brazil has been an active member of the Nuclear Suppliers Group since 1996 and has incorporated the guidelines of the Group into its national legislation. Domestic norms impose procedures for Brazilian exports and re-exports of any related equipment, material or technologies identified under the list of nuclear equipment, material and technology or under the List of Nuclear-Related Dual-Use Equipment and Materials, Software and Related Technology, which may be applicable in nuclear activities. Those lists are updated periodically, with the aim of maintaining them in line with the Brazilian legislation and decisions adopted within the Group. Additionally, specific domestic legislation establishes procedures for the import of all nuclear-related sensitive equipment, material and technologies.

Action 38: The Conference calls upon all States parties, in acting in pursuance of the objectives of the Treaty, to observe the legitimate right of all States parties, in particular developing States, to full access to nuclear material, equipment and technological information for peaceful purposes.

Action 39: States parties are encouraged to facilitate transfers of nuclear technology and materials and international cooperation among States parties,

in conformity with articles I, II, III and IV of the Treaty, and to eliminate in this regard any undue constraints inconsistent with the Treaty.

38. Brazil is a founding member of the International Atomic Energy Agency. Since 1957, it has participated in an active and constructive manner in the work of the Agency with the aim of strengthening the exercise of the inalienable right to the peaceful uses of nuclear technology and promoting international cooperation in this field. Brazil receives significant benefits from international cooperation and also assists other States by providing technical cooperation on nuclear science and nuclear technology applications. Brazil maintains nearly 20 bilateral nuclear cooperation agreements, with both developed and developing countries. Brazil attaches particular relevance to the IAEA Technical Cooperation Programme, in which it is an active participant, as both beneficiary and donor country.

39. Under the auspices of the Technical Cooperation Programme, Brazil sends some 50 technicians for training abroad every year. Furthermore, it offers more than 40 scholarships to nationals of countries in Latin America and the Caribbean, Africa, the Middle East and Asia for training at Brazilian institutions and facilities. Brazil also makes about 25 nuclear specialists available every year to serve in the context of IAEA expert missions abroad.

40. Since the 1980s, Brazil has been an active participant in the Regional Cooperative Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean, mainly as a donor country, by making scholarships available at its nuclear institutions for the training of Latin American and Caribbean experts and by assigning Brazilian experts and instructors to assist other countries in the region. At the moment, there are 15 regional projects under the scope of the Regional Cooperative Agreement. Brazil also actively participated in the elaboration of the regional strategic profile for Latin America and the Caribbean 2016-2021, under the Regional Cooperative Agreement.

Action 40: The Conference encourages all States to maintain the highest possible standards of security and physical protection of nuclear materials and facilities.

41. Steps to reinforce the physical protection of nuclear facilities in Brazil have been taken since the early 1980s. The National Commission for Nuclear Energy issued, in 1981, its regulation on nuclear security (CNEN Regulation NE 2.01: physical protection of operational units in the nuclear area), whose most recent revision was undertaken in 2011. The document is currently undergoing further revision in order to update its requirements according to the recommendations contained in the *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (INFCIRC/225/Rev. 5).

42. Within the framework of IAEA, Brazil has been supporting several activities in the field of nuclear security, including the elaboration of the *Nuclear Security Series* documents, the sponsorship of regional courses in Latin America and the Caribbean, the organization of national workshops and the appointment of experts to missions. Brazil has actively participated in the joint task force of the Commission on Safety Standards, in the Nuclear Security Guidance Committee and in the Nuclear Security Advisory Service to discuss the synergies between nuclear safety and security. Moreover, Brazil took a leading position in the drafting exercise of the

ministerial declaration adopted at the 2013 IAEA International Conference on Nuclear Security: Enhancing Global Efforts.

Action 41: The Conference encourages all States parties to apply, as appropriate, the IAEA recommendations on the physical protection of nuclear material and nuclear facilities (INFCIRC/225/Rev.4 (Corrected)) and other relevant international instruments at the earliest possible date.

43. The requirements of the IAEA *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (INFCIRC 225/Rev. 5) are being considered in the revision of CNEN Regulation NE 2.01 on physical protection of operational units in the nuclear area, which is presently under way.

Action 42: The Conference calls on all States parties to the Convention on the Physical Protection of Nuclear Material to ratify the amendment to the Convention as soon as possible and encourages them to act in accordance with the objectives and the purpose of the amendment until such time as it enters into force. The Conference also encourages all States that have not yet done so to adhere to the Convention and adopt the amendment as soon as possible.

44. Brazil is finalizing the necessary interministerial consultations with a view to submitting the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material to legislative approval, as a further step to its participation in all relevant international conventions on the promotion of nuclear security and the suppression of terrorism.

45. In addition, the National Commission for Nuclear Energy is revising its regulations on nuclear and radiological security, taking into account international best practices and the provisions of the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material, as well as the *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (INFCIRC/225/Rev.5) and other relevant IAEA recommendations.

Action 43: The Conference urges all States parties to implement the principles of the revised IAEA Code of Conduct on the Safety and Security of Radioactive Sources, as well as the Guidance on the Import and Export of Radioactive Sources approved by the IAEA Board of Governors in 2004.

46. Brazil has expressed its political commitment to the implementation of the IAEA Code of Conduct on the Safety and Security of Radioactive Sources, as well as the Guidance on the Import and Export of Radioactive Sources.

Action 44: The Conference calls upon all States parties to improve their national capabilities to detect, deter and disrupt illicit trafficking in nuclear materials throughout their territories, in accordance with their relevant international legal obligations, and calls upon those States parties in a position to do so to work to enhance international partnerships and capacity-building in this regard. The Conference also calls upon States parties to establish and enforce effective domestic controls to prevent the proliferation of nuclear weapons in accordance with their relevant international legal obligations.

47. Brazil contributes to the IAEA Incident and Trafficking Database and the IAEA Nuclear Security Information Portal. At the regional level, it has been engaged in the efforts of the MERCOSUR and associated States to prevent, detect and respond to the threat of illicit trafficking of nuclear and radioactive materials,

including training courses for border officials, exchange of information and best practices.

48. In partnership with IAEA, the Brazilian Nuclear Physical Security Support Centre was established in 2012 with the aim of promoting the culture of nuclear security in the country, as well as training and qualifying personnel in the area of nuclear security. Six training courses at the national level and one at the regional level have been conducted since its creation.

Action 45: The Conference encourages all States parties that have not yet done so to become party to the International Convention for the Suppression of Acts of Nuclear Terrorism as soon as possible.

49. Brazil has been a party to the Convention for the Suppression of Acts of Nuclear Terrorism since 2009.

50. The long-standing position of Brazil in this regard is that efforts towards nuclear security must be articulated within the international community's broader efforts to promote the goals of nuclear disarmament, non-proliferation and the advancement of the peaceful uses of nuclear energy. Furthermore, Brazil is convinced that nuclear security efforts must be geared towards protecting all nuclear material and installations, encompassing both civilian and military. This view drives the Brazilian position in discussions related to nuclear security, both at IAEA and in other forums. One example was the initiative, along with 14 other non-nuclear-weapon States, of the joint statement "In larger security: a comprehensive approach to nuclear security", issued at The Hague Nuclear Security Summit held in 2014.

Action 46: The Conference encourages IAEA to continue to assist the States parties in strengthening their national regulatory controls of nuclear material, including the establishment and maintenance of the State systems of accounting for and control of nuclear material, as well as systems on regional level. The Conference calls upon IAEA Member States to broaden their support for the relevant IAEA programmes.

51. Brazil established its State System of Accounting for and Control of Nuclear Materials in the early 1980's. The national rule on this subject was issued in 1982, the regulatory control body was established in the National Commission for Nuclear Energy and a laboratory was created for conducting independent measurements of nuclear material in support of the physical verification activities of the Commission. The Brazilian State System of Accounting supports the IAEA secretariat in the implementation of safeguards in Brazil by participating in IAEA inspections and providing support and logistic arrangements for equipment operation and storage. The latest relevant improvements in the Brazilian State System of Accounting were the development of an on-line real time accounting and control software (e-Gamma) and the upgrade of the safeguards laboratory of the National Commission for Nuclear Energy. The e-Gamma system, adopted in January 2014 for use in all nuclear facilities in Brazil, is also available for use by IAEA and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials, allowing them access to the records of the Brazilian nuclear facilities directly from their headquarters. As for the safeguards laboratory, determination of uranium isotopic composition by mass spectrometer is under implementation, and future environmental analysis capabilities are foreseen. At the regional level, in 1991, Brazil established, in cooperation with Argentina, the Common System of

Accounting for and Control of Nuclear Materials. The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials was created to administer the Common System.

Peaceful uses of nuclear energy

Action 47: Respect each country's choices and decisions in the field of peaceful uses of nuclear energy without jeopardizing its policies or international cooperation agreements and arrangements for peaceful uses of nuclear energy and its fuel cycle policies.

Action 48: Undertake to facilitate, and reaffirm the right of States parties to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy.

Action 49: Cooperate with other States parties or international organizations in the further development of nuclear energy for peaceful purposes, with due consideration for the needs of the developing areas of the world.

Action 50: Give preferential treatment to the non-nuclear-weapon States parties to the Treaty, taking the needs of developing countries, in particular, into account.

Action 51: Facilitate transfers of nuclear technology and international cooperation among States parties in conformity with articles I, II, III, and IV of the Treaty, and eliminate in this regard any undue constraints inconsistent with the Treaty.

Action 52: Continue efforts, within IAEA, to enhance the effectiveness and efficiency of its technical cooperation programme.

Action 53: Strengthen the IAEA technical cooperation programme in assisting developing States parties in the peaceful uses of nuclear energy.

Action 54: Make every effort and to take practical steps to ensure that IAEA resources for technical cooperation activities are sufficient, assured and predictable.

Action 56: Encourage national, bilateral and international efforts to train the necessary skilled workforce needed to develop peaceful uses of nuclear energy.

52. Brazil is a staunch supporter of the inalienable right of all countries to conduct peaceful nuclear programmes. This right precedes the Non-Proliferation Treaty and is not restricted by it in any way. Brazil places great importance on the peaceful applications of nuclear energy, from medicine, the production of radioisotopes, radiopharmaceuticals and radioactive sources, to the nuclear fuel cycle, power generation, industry, agriculture and environment.

53. Brazil is convinced that nuclear technology can play a very important role with respect to the post-2015 development agenda. As highlighted in the outcome document of the United Nations Conference on Sustainable Development, there is a need to achieve sustainable development in all its dimensions, integrating economic, social and environmental aspects and recognizing their interlinkages. The applications of nuclear energy have an impact on these three dimensions. Nuclear applications in health and nutrition, food and agriculture, water and environment,

and energy contribute to eradicating poverty, saving lives, improving health and education and having gains in productivity.

54. As a country that is both recipient and donor, Brazil fully supports the constant strengthening and steady implementation of the IAEA Technical Cooperation Programme, which should be provided with sufficient, adequate and predictable resources. Brazil is 1 of the 10 countries that offers the largest number of experts and lecturers for the Programme. It offers scholarships at Brazilian institutions and facilities, makes nuclear specialists available every year and sends technicians for training abroad (see para. 39 above).

55. Brazil has been an active participant since the 1980s in Regional Cooperative Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean (see para. 40 above). There are currently 15 projects being carried out under the Regional Cooperative Agreement. The regional strategic profile 2016-2021 will enhance the formulation of future technical cooperation projects, in partnership with IAEA. It will also constitute an excellent foundation for the development and updating of the country profile frameworks of Member States in the Latin American and Caribbean region.

56. Brazil has also strengthened its cooperation in the nuclear field with Portuguese-speaking countries in Africa, in particular Angola and Mozambique, with a focus on areas such as licensing, medical applications and the management of technical cooperation projects.

Action 57: Ensure that, when developing nuclear energy, including nuclear power, the use of nuclear energy must be accompanied by commitments to and ongoing implementation of safeguards as well as appropriate and effective levels of safety and security, consistent with States' national legislation and respective international obligations.

57. Information on nuclear facilities being planned, designed and constructed is regularly provided by the Brazilian Nuclear Energy Commission to the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials and IAEA, in accordance with the relevant provisions of the Quadripartite Agreement and its subsidiary arrangements, in order to allow the discussion on safeguards features as early as possible.

58. In the field of nuclear safety, the Fukushima accident (March 2011) was undoubtedly the most significant event in recent years. At the Sixth Review Meeting of Contracting parties to the Convention on Nuclear Safety, which was held from 24 March to 4 April 2014, the National Commission for Nuclear Energy Commission presented a national report that contained detailed information on the implementation of the national response plan to the fukushima accident. the national report outlined three focus areas within the response plan: (a) protection against risk events; (b) cooling capacity of reactors and pools; and (c) limitation of consequences. With regard to protection against risk events, studies on the reassessment of wave height, impact of tornados, flooding by internal events and fire hazard reassessment were concluded in 2014. In relation to the cooling capacity of reactors and pools, additional protection measures have kept priority status in line with the results obtained upon the conclusion of the stress tests conducted on the currently operating Brazilian nuclear power plants (Angra I and Angra II). With respect to the limitation of consequences, the installation of hydrogen catalytic

recombinators in Angra I has been concluded, whereas the installation of the same equipment in Angra II has already been procured.

59. Brazil has also been regularly receiving safety-related peer review missions, such as the follow-up Operational Safety Review Team mission in February 2014, the World Association of Nuclear Operators corporate peer review in October 2014 and the Safety Aspects of Long Term Operation of Water Moderated Reactors peer review service in November 2014.

Action 59: Consider becoming party, if they have not yet done so, to the Convention on Nuclear Safety, the Convention on Early Notification of a Nuclear Accident, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, the International Convention for the Suppression of Acts of Nuclear Terrorism, the Convention on the Physical Protection of Nuclear Material, and to ratify its amendment so that it may enter into force at an early date.

60. Brazil is a party to the Convention on Nuclear Safety, the Convention on Early Notification of a Nuclear Accident, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, the International Convention for the Suppression of Acts of Nuclear Terrorism, and the Convention on the Physical Protection of Nuclear Material. Brazil is finalizing the necessary interministerial consultations with a view to submitting the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material to legislative approval, as a further step to its participation in all relevant international conventions on the promotion of nuclear security and the suppression of terrorism.

Action 60: Promote the sharing of best practices in the area of nuclear safety and security, including through dialogue with the nuclear industry and the private sector, as appropriate.

61. The National Commission for Nuclear Energy regularly undertakes efforts with the national nuclear industry to strengthen nuclear security and safety culture, through the organization of workshops, seminars and training courses.

62. As regards nuclear safety, the Ibero-American Forum of Radiological and Nuclear Regulatory Agencies has been instrumental in maintaining and improving radiological and nuclear safety regionally. Since 2013, the Forum has concluded the scientific tasks related to the criteria regarding the licensing and inspecting of ciclotrons used in medical research and applications. Likewise, it has issued the results of the project on nuclear and radiological emergency response. Finally, safety improvements identified by the resistance assessments conducted on the nuclear power plants of Forum member States are being implemented, so as to strengthen their operational safety.

63. In 2015, mock nuclear emergency exercises were conducted in the area of the Central Nuclear Almirante Álvaro Alberto, in the municipality of Angra dos Reis, by the Angra dos Reis Nuclear Emergency Response Planning Committee and in the area of Brazilian Nuclear Industries, in the municipality of Resende, by the Resende Nuclear Emergency Response Planning Committee. Several agencies took part in the exercises, including civil defence, health, environmental and nuclear authorities.

Action 61: Encourage States concerned, on a voluntary basis, to further minimize highly enriched uranium in civilian stocks and use, where technically and economically feasible.

64. Brazil has converted all of its nuclear research reactors for the use of low-enriched uranium fuel. All highly enriched nuclear fuel elements have been repatriated to the country of origin. The new Brazilian multipurpose reactor is being designed to use low-enriched uranium also.

Action 62: Transport radioactive materials consistent with relevant international standards of safety, security and environmental protection, and to continue communication between shipping and coastal States for the purpose of confidence-building and addressing concerns regarding transport safety, security and emergency preparedness.

65. The National Commission for Nuclear Energy has been working with the nuclear industry and other agents having access to radioactive material to improve security standards in the transport of nuclear and radioactive material across the national territory.

Action 63: Put in force a civil nuclear liability regime by becoming party to relevant international instruments or adopting suitable national legislation, based upon the principles established by the main pertinent international instruments.

66. Brazil has been a party since 1993 to the Vienna Convention on Civil Liability for Nuclear Damage. Liability is one of the requirements set by the National Commission for Nuclear Energy for the licensing process of nuclear installations.